

REMARKS/ARGUMENTS**The Office Action**

In the above-mentioned Office Action, claims 322 and 385 were objected to due to various informalities; claims 322-429 were rejected as being indefinite; claims 322, 328-335, 342-345, 347-350, 352, 353, 385, 391-398, 405, 406, 408, 411, 413-415, 421-424, 428, and 429 were rejected as being unpatentable over U.S. Patent 5,637,458 (Frankel et al.) in view of U.S. Patent 6,375,901 (Robotti et al.); claims 323-327, 338-341, 351, 386-390, 401-404, 412, 416-420, and 425-427 were rejected as being unpatentable over Frankel, et al. in view of Robotti, et al. as applied to claims 322, 354, 385, and 415, and further in view of Heegaard et al. (*Journal of Chromatography B*, Sept. 11, 1998, Vol. 715, pp 29-54); claims 336 and 399 were rejected as being unpatentable over Frankel, et al. in view of Robotti, et al. as applied to claims 322 and 385, and further in view of U.S. Application Publication No. 2003/0134416 (Yamanishi et al.); claims 337 and 400 were rejected as being unpatentable over Frankel, et al. in view of Robotti, et al. as applied to claims 322 and 385, and further in view of U.S. Application Publication No. 2002/0115201 (Barenburg et al.); claims 346 and 407 were rejected as being unpatentable over Frankel et al. in view of Robotti et al. as applied to claims 322 and 385, and further in view of Heegaard et al. and U.S. Patent 5,246,577 (Fuchs et al.); claims 354, 361-367, 374-376, 378-381, 383, and 384 were rejected as being unpatentable over Frankel et al. in view of Robotti et al. and U.S. Patent 5,582,705 (Yeung et al.); claims 355-360, 370-373, and 382 were rejected as being unpatentable over Frankel et al. in view of Robotti et al. and Yeung et al. as applied to claim 354, and further in view of Heegaard et al.; claim 368 was rejected as being unpatentable over Frankel et al. in view of Robotti et al. and Yeung et al. as applied to claim 354, and further in view of Yamanishi et al.; claim 366 was rejected as being unpatentable over Frankel et al. in view of Robotti et al. and Yeung et al. as applied to claim 354, and further in view of Barenburg et al.; and claim 377 was rejected as being unpatentable over Frankel et al. in view of Robotti et al. and Yeung et al. as applied to claim 354, and further in view of Heegaard et al., and further in view of Fuchs et al. The

following claims were rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent 6,406,604 on the following grounds: claims 322-326, 328, 330, 334, 335, 342, 347, 349-350, 352, 353, 385-389, 391, 392, 394, 397, 398, 406, 408-411, 413-419, 422, 428, and 429 in view of Robotti et al.; claims 327, 338-341, 351, 390, 401-404, 412, 416-420, and 425-427 in view of Robotti et al. as applied to claims 323, 385, and 415, and further in view of Heegaard et al.; claims 329, 331, 332, 343-345, 393, 395, 405, 423, and 424 in view of Robotti et al. as applied to claims 323, 385, and 415 above, and further in view of Frankel et al.; claims 336 and 399 in view of Robotti et al. as applied to claims 323 and 385, and further in view of Yamanishi et al.; claims 337 and 400 in view of Robotti et al. as applied to claims 323 and 385 above, and further in view of Barenburg et al.; claims 346 and 407 in view of Robotti et al. as applied to claims 323 and 385, and further in view of Heegaard et al. and Fuchs et al.; claims 354, 356-359, 361, 363, 366, 367, 378-381, 383, and 384 in view of Robotti et al. and Yeung et al.; claims 355, 360, 370-373, and 382 in view of Robotti et al. and Yeung et al. as applied to claim 354 above, and further in view of Heegaard et al.; claim 368 in view of Robotti et al. and Yeung et al. as applied to claim 354 above, and further in view of Yamanishi et al.; claim 369 in view of Robotti et al. and Yeung et al. as applied to claim 354, and further in view of Barenburg et al.; and claim 377 in view of Robotti et al. and Yeung et al. as applied to claim 354 above, and further in view of Heegaard et al. and Fuchs et al. The following claims were provisionally rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 36-77 of copending Application No. 10/821,328 on the following grounds: claims 322-328, 331, 334, 335, 339-350, 352-361, 364, 366, 367, 371-381, 383-392, 395, 397, 398, 402-411, 413-420, 423, and 425-429 in view of Robotti et al.; claims 329, 330, 332, 333, 362, 363, 365, 393, 394, 396, 421, 422, and 424 in view of Robotti et al. as applied to claims 322, 354, 385, and 415, and further in view of Frankel et al.; claims 336, 368, and 399 in view of Robotti et al. as applied to claims 322, 354, and 385, and further in view of Yamanishi et al.; claims 337, 369, and 400 in view of Robotti et al. as applied to claims 322, 354, and 385, and further in view of Barenburg et al.; and claims 338, 351, 370, 382, 401, and 412 in view of

Robotti et al. as applied to claims 322, 354, and 385, and further in view of Heegaard et al.

The Prior Amendment

In the Amendment dated February 5, 2007, claims 322-429 were cancelled without prejudice or disclaimer, new claims 430-608 were added, paragraphs [0092], [0123], [0124], [0141] and [0142] of the specification were amended, and drawing FIGS. 2, 4, 6, 14, 23B and 24B were amended.

The Telephone Interview

The below-signed counsel for Applicant thanks Examiner Jung for the courtesies extended to him during their telephone interview of April 19, 2007. During that interview Examiner Jung requested that certain of the claims be amended so as to ensure that they were clearly supported and/or that the Applicant indicate where support in this long application is provided for them. In response thereto, the present Supplemental Amendment is submitted for discussion purposes.

The Present Supplemental Amendment

In the present Supplemental Amendment, paragraphs [0091], [0123], [0124] and [0141] of the specification have been amended; a correction has been made to a replacement drawing submitted with the prior Amendment; claims 430, 433, 434, 436-439, 443, 445-449, 451, 452, 454, 455, 462, 464-469, 471, 477, 479, 481, 483, 484, 488, 490-492, 497, 500, 501, 504, 506, 510, 512, 514, 515, 517-519, 525-528, 531, 533, 542, 543, 548, 549, 550, 554, 557, 561, 567, 569, 571-573, 575, 576, 587-589, 599, 600 and 604-606 have been amended; and new claim 609 has been added.

The "analyte detector means for" element in the penultimate paragraph of claims 430 is in means-plus-function format. The Examiner's attention is directed, for example, to dependent claims 457, 558, 459, 460, 463, 467, 468 and 489 to help with her understanding thereof.

The "valve controlling means for" element in the last paragraph of claim 430 has been amended to delete the word "valve." This element is clearly now in means-plus-

function format. The Examiner's attention is directed, for example, to dependent claims 439, 452, 455, 462, 464, 477, 479 and 484 to help with her understanding thereof.

New independent claim 609 is identical to claim 430 except for the last paragraph thereof. While the last paragraph of claim 430 is in means-plus-function format (as mentioned above), the last paragraph (the "valve system") of claim 609 is not.

Explanations for many of the claims are set forth below.

Claim 443 – see paragraphs [0097] and [0098], and original claims 74, 75, 110, 175, 176 and 303. (See also claims 510 and 567.)

Claim 447 – see paragraph [0104]. (See also claim 571.)

Claim 451 – "separation buffer fluid means for" is in means-plus-function format. See paragraphs [0125], [0126] and [0127] and claims 72 and 173. (See also claims 517 and 575.)

Claims 453 and 454 – see paragraphs [0079] and [0081], Table 1 (Sodium tetraborate) and paragraph [0125]. (See also claims 519, 520, 577 and 578.)

Claim 455 – see original claims 81, 88 and 141.

Claim 456 – see paragraphs [0079], [0080] and [0082]. (See also claims 521 and 579.)

Claim 465 – see paragraphs [0078], [0098] and [0118]. (See also claims 521 and 579.)

Claim 466 – see the right sides of FIGS. 1, 7, 8, 9, 13, 17 and 18.

Claim 471 – see FIGS. 27A, 27B, 28A and 28B. (See also claim 533.)

Claim 480 – see the plus ("+") and minus ("-") signs in the drawings, e.g., FIG. 1. (See also claims 542 and 599.)

Claim 481 – see paragraphs [0093], [0096], [0111], [0114] and [0116]. (See also claims 543 and 600.)

Claim 490 – see paragraph [0090]. (See also claim 606.)

Claim 549 – see paragraph [0132].

Claim 550 – see paragraph [0132].

Claim 553 – see paragraph [0104].

Claim 554 – see paragraph [0104].

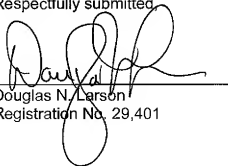
Conclusions

Accordingly, it is respectfully contended that all of the claims now pending are in condition for allowance. Issuance of the Notice of Allowance at an early date is thus in order.

If there are any remaining issues, Examiner Jung is encouraged to telephone the below-signed counsel for Applicant at (310) 785-5384 to seek to resolve them.

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 10-0440. Should such additional fees be associated with an extension of time, Applicant respectfully requests that this paper be considered a petition therefor.

Respectfully submitted,



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